


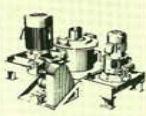

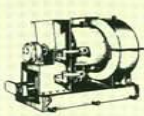











HOSOKAWA MICRON

LEADER OF POWDER PROCESSING TECHNOLOGY

From a Single Unit to a Complete Treatment System

Hosokawa has specialized in powder processing technology for over 75 years. Today Hosokawa makes a complete line of advanced equipment for fine-grinding, classifying, drying, mixing, dust collection

and measurement. Yet, Hosokawa's most distinguished feature is still its flexible system engineering to satisfy a wide variety of needs. Whenever you have a powder problem, come to Hosokawa.

 Fine grinding Pulverizer	 Fine grinding ACM Pulverizer	 Ultra-fine grinding Super Micron Mill	 Ultra-fine grinding Fine Micron Mill	 Ultra-fine pulverizing Micron Jet
 Cryogenic pulverizing Linrex Mill	 Fine granulation Fitz Mill	 Mixing/Drying Nauta Mixer Reactor	 Drying Solidaire Dryer	 Drying Micron Dryer
 Dry granulation Chilsonator	 Dust Collection Pulsaire Collector	 Analysis Micron Wash Sieve	 Measurements Powder Characteristics Tester	 Particle Size Measuring Sedimentometer

Your Local Distributor:



HOSOKAWA MICRON CORPORATION

INTERNATIONAL SALES DEPT.

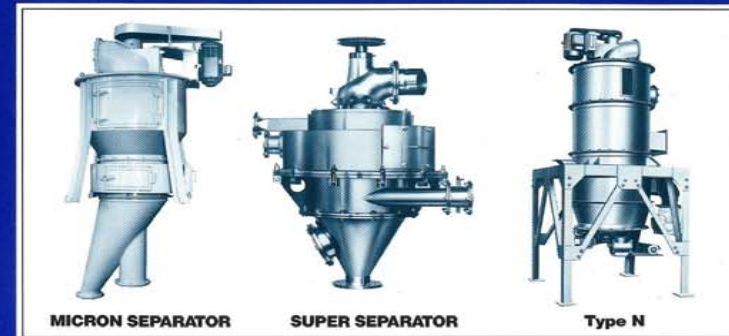
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MICRON SEPARATOR



HOSOKAWA MICRON CORPORATION

HOSOKAWA MICRON SEPARATOR:

For the Changing Needs of Today's Industry



A loaf of bread, a lipstick, an LSI ceramic package, an acrylic blouse: what do these things have in common? All of them can be improved by the Hosokawa Micron Separator.

The particles that make up these and other products vary in their characteristics as their size changes; a change in particle size, for example, can often even turn inert material into an explosive. For paint to give a uniform coating, particles larger than a desired size must be removed. If filter media particles are finer than necessary, filtration will be obstructed.

Activated carbon absorbent or abrasive quartz grit must be classified within a narrow range of particle sizes. Particle size must be carefully controlled in chemical reactions since the surface area of the material (determined by the particle size) is an important



factor of the reaction speed. We need to classify particles then, to obtain materials with properties suitable for the application at hand, and it is difficult to control super-fine particle size with just a sieving machine.

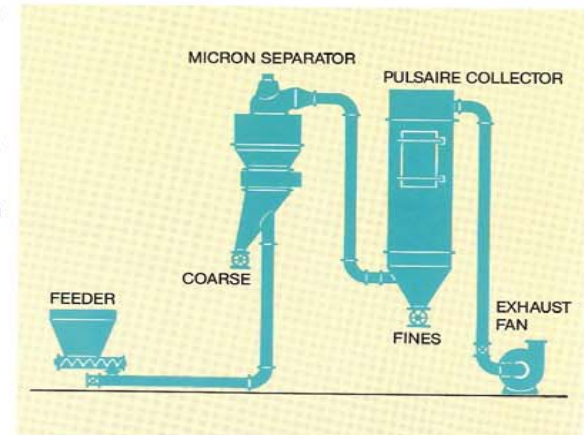
Industry needs a precise, consistent classifier, and the Micron Separator is it: a mechanical, centrifugal air classifier, the culmination of years of theoretical and applied research.



FLOW SHEET

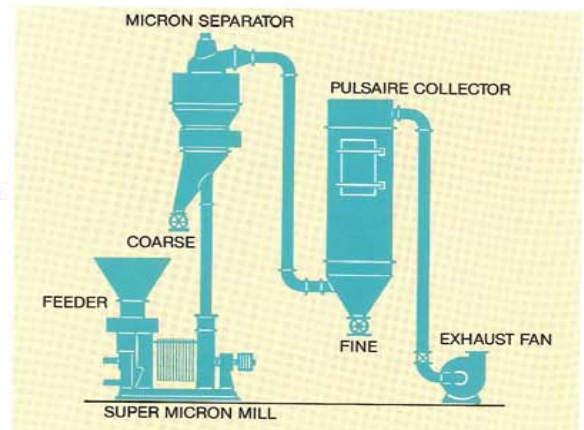
Standard Classification System

This is the standard setup of the Micron Separator with an ancillary feeder, Pulsaire Collector, and fan. Material fed into the ducting by the feeder is air-conveyed to the Micron Separator. The classified coarse is discharged through the outlet in the conical chute, while the classified fines are conveyed pneumatically into the Pulsaire Collector. Many of these systems have been delivered for the classification of cement, zirconium sand, alumina, activated carbon, and coke.



Grinding and Classifying System

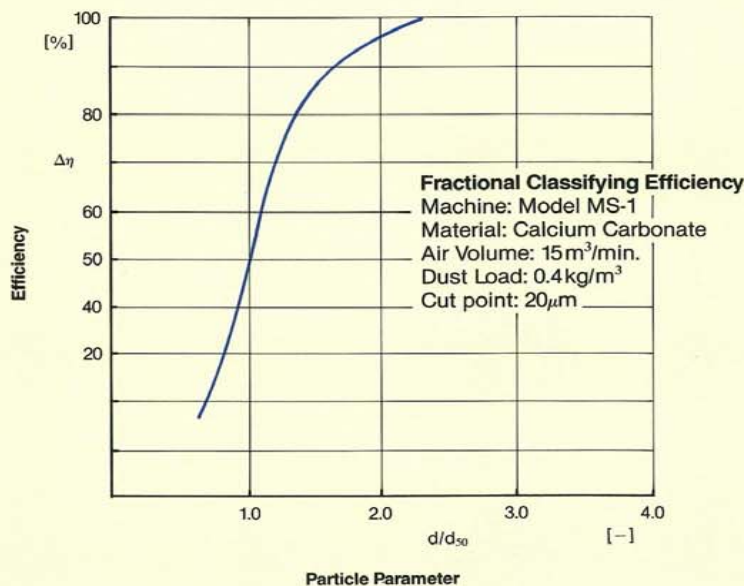
This is a typical setup in combination with the Super Micron Mill. The use of the Micron Separator with any pulverizer will considerably increase the performance of the pulverizer. The system shown at right grinds and classifies such materials as chalk, talc, clay, and graphite to produce fine particles.



PERFORMANCE DATA

The graph shows the Micron Separator's performance in terms of the partial classifying efficiency curve. "d" is particle diameter, and "d₅₀" indicates that the partial classifying efficiency is 50% for this diameter. The curve in the graph proves the excellence of the Micron Separator in fine classification.

Classifying efficiency generally lowers as the particle-air ratio increases, mainly because particles are recovered without being classified.



The Three Distinct Types for Field-Proven Precise Classification of Micron Particles

MICRON SEPARATOR

The Micron Separator is a standard model, adjustable over a wide range of particle sizings from 3 to a few hundreds micron for wide applications. It can handle spheres, flakes, and fibers, both organic and inorganic.



SUPER SEPARATOR

Has excellent classification capabilities with sharp cut points, from super-fines down to a few microns.



SEPARATOR TYPE N

The Separator Type N is specifically designed to handle large volumes of materials with relatively coarser cut points, such as calcium carbonate, cements, slaked limes, etc.



MATERIAL	MODEL	INPUT CAPACITY kg/hr	PRODUCT FINENESS
Bean-curd refuse	MS-2	200	150 mesh pass
Organic chemicals	MS-3	300	99% pass 30μm
Epoxy resin	MS-3	300	150 mesh all pass
Perlite	MS-3	350	99.2% minus 200 mesh
Scrap rubber	MS-3	500	
Granular sugar	MS-3	1,000	30μm all pass
Wheat flour	MS-3	2,500	13μm cut
Zinc	MS-4	800	97% pass 10μm
Phenolic resin	MS-4	800	99.8% pass 300 mesh
Calcium carbonate	MS-4	1,000	Max 10μm Av. 1μm
Talc	MS-4	1,100	98% pass 10μm
Alumina	MS-4	1,200	95% pass 5μm
A B S resin	MS-4	1,300	60 mesh cut
Activated clay	MS-4	2,000	98% pass 10μm
Manganese dioxide	MS-4	2,000	90% pass 10μm
Cement	MS-5	1,500	Brain value more than 6,000cm ² /g
Zirconium sand	MS-5	3,000	200,300 mesh cut
Bentonite	MS-5	6,500	325 mesh all pass
Coal	MS-5	7,500	300 mesh cut
Chromite	MS-6	18,900	200 mesh cut
Toner	MSS-1	35	0.1% pass 5μm
Zeolite	MSS-1	95	0.2% pass 3μm
Cerium oxide	MSS-1	30	99+ % pass μm
Ferrite	MSS-1	40	90% pass 5μm
Hydrocarbon	MSS-1	35	Average 1.3μm
Calcium carbonate	MSS-1	80	- 5μm 100%
Metallic silicon	MSS-1	40	Average 2.7μm
Mica	MSS-1	70	90% pass 10μm
Manganese dioxide	MSS-1	50	Average 1.5μm
Zirconium sand	MSS-1	40	Average 1.5μm
Bentonite	MSS-1	40	99+ % pass 10μm
Magnesium hydroxide	MSS-1	30	97% pass 5μm
Alumina ceramic	MSS-1	30	75% pass 10μm
Hydrated lime	MS-3N	4,000	Under 200 mesh
Fish meal	MS-4N	6,000	99.5% pass 60 mesh
Glauber salts	MS-4N	8,500	85% over 100 mesh
Corn cob	MS-4N	9,000	99.4% over 95μm
Calcium carbonate	MS-4N	15,000	92% pass 46μm

